



# The AIRTV System

Presented to FCC

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[www.airtv.net](http://www.airtv.net)



## Outline

- Overview of AirTV and Status
- NPRM Discussion
- Conclusion



## Creation of a New Multi-Media Market

- New dedicated global satellite system delivering real-time television, Internet, email and cockpit applications to commercial aircraft
- Four high powered geostationary satellites, each offering a total capacity of 80 Mbps
- S-band downlink – the ideal mobile band for the airline industry
- Experienced industrial team – Alcatel Space (satellites and ground system), Arianespace (launch services), CMC Electronics (aircraft antenna), SITA (return link for data services)
- Target market – long-haul wide-bodied aircraft with in-seat IFE monitors



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## AirTV Chronology

1994	AirTV founded by John Larkin
1996	S band selected for AirTV application
1997	Three orbital slots filed thru Canada & Brunei
1998	Six additional slot filings
2000	Construction and launch contract signed
2000	Alcatel & Ariane invest in AirTV
2001	Private funding round closes, staff hired
2003	Due diligence phase with investment banks, complete initial funding round & start construction
2006	Commence operations

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## Supported by Strong Airline Industry Partners

- Airbus – To be announced in Sept.
  - Endorse Airtv as preferred supplier for in-flight TV
  - Endorse Airtv as preferred broadband supplier for AFIS
- Rockwell Collins
  - Joint marketing arrangements with Airtv
  - Endorses Airtv's broadband capability
- Tenzing Communications
  - Designated Airtv as preferred broadband supplier
- Robert Crandall, senior advisor
  - Former President, Chairman and CEO of American Airlines

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## Competitive Landscape

- Providers of aeronautical data and video services
  - Inmarsat
    - Primarily low to medium rate data service, insufficient bandwidth for video
  - LiveTV
    - Featured on JetBlue and Frontier in US
    - US-only model not expandable worldwide
  - Connexion by Boeing
    - Using leased Ku-band FSS capacity, presently limited ocean coverage
  - Airtv
    - Purposed-built, broadband global system

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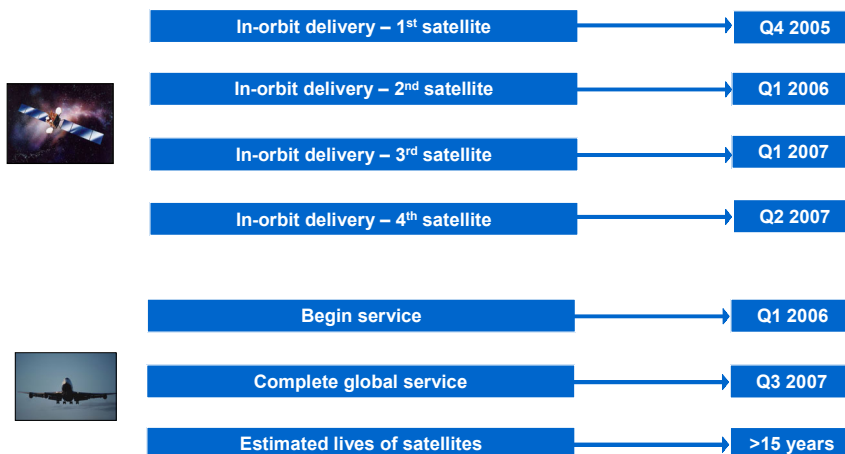
## Advantages of AIRTV's S-Band Service

- Global coverage (except polar)
  - Full contiguous service, no gaps in coverage
- Best spectrum
  - Primary authorization by ITU in all 3 regions
- High capacity
  - 80 Mbps everywhere: 60+ channels of TV featuring perishable content and 40 Mbps of data
- Purpose built system
  - Simplicity of design requires fewer satellites, transponders, uplinks and ground infrastructure than a Ku-band system
- Lowest cost for same capacity

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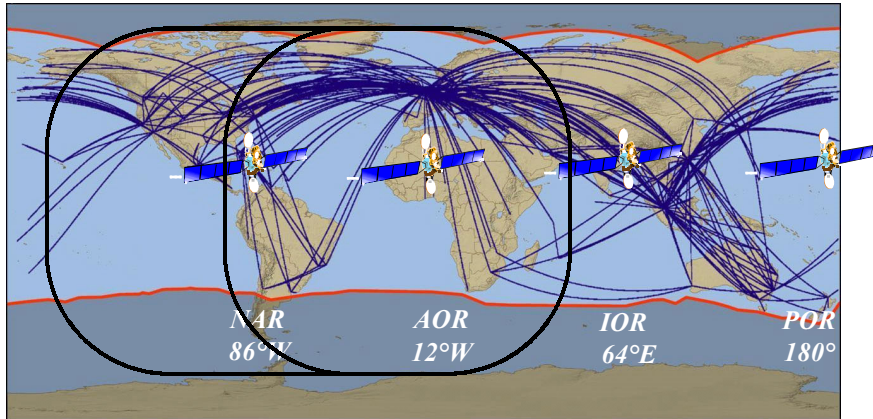
## Schedule for Service



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## AIRTV Worldwide Coverage

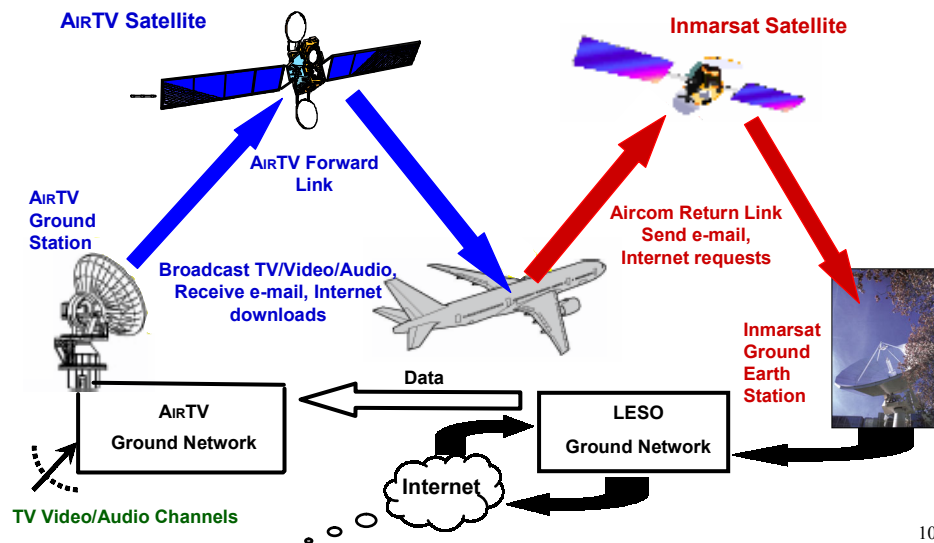


Seamless worldwide service to aircraft

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## AIRTV Transmission System



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## Regulatory Status

- Worldwide primary allocations exist without change: S-band downlink (BSS-2535-2655 MHz) and Ka-band uplink (18.1-18.3 GHz)
- Nine AIRTV orbit location filings by Canada and Brunei prevent competitors
  - All locations ready for Notification
- Coordination can be completed under existing regulations
- AIRTV system conforms to all regulatory constraints
- Use of orbit positions could take place now

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## NPRM (ET Docket # 02-305, RM-10331)

- Proposes removal of BSS allocation in US for S-band frequencies (2500-2690 MHz)
  - Cites potential interference with point to multipoint channels and low power consumer response channels.
- AirTV submitted comments and subsequent reply comments in opposition to this proposal
  - AirTV poses no threat of harmful interference to present or future terrestrial services
    - AirTV operates significantly below PFD limits of Table 21.4 – no previous opposition by US to AirTV filings
    - Interference studies performed by AirTV, ITU working groups and Industry Canada validate that AirTV and terrestrial can coexist
  - AirTV serves the public interest and proposal would be anti-competitive

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## NPRM Cont'd

- AirTV requested removal of Footnote NG101
  - BSS S-band presently restricted to educational programming
  - Footnote removal will allow BSS to expand service offerings
    - Precedence already exists with MDS and ITFS

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## Conclusions – AirTV will

- Provide the flying public with enhanced services
  - High speed email and Internet
  - Wide variety of language-specific video content
- Enhance safety and efficiency of airlines
  - Improved delivery mechanism for weather map, charts and cockpit communications
- Not impact existing terrestrial or satellite services
  - Operates within PFD limits and proposed thresholds
  - Coordination well into completion
- Promote competition among airlines and aeronautical broadband services providers
- Provide global coverage

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